

SUGAR BEETS

FERTILITY OF THE SOIL.

Particularly Applicable to the Beautiful Snake River Valley, Southern Idaho.

During the last five years I have observed that the greater number of the farmers in the above mentioned section have given but very little thought or attention to the necessity of retaining or increasing the fertility of their soils in many localities. In the Snake River Valley, nature has been very kind in the depositing of considerable fertilizer which gave the farmers very good crops for a number of years after the soil was put under cultivation, and many of them simply take all that they can get off of the farm by doing as little work as possible, reducing the soil to poverty, as they never thought of putting anything back by way of fertilizer. And as a grain crop was the general crop throughout the valley, and as grain is very hard on the soil it worked a great hardship on certain sections. However, we are glad to note some improvement during the last few years, as we together with a number of the farmers, have found that the cheapest fertilizer is found in plowing into the soil alfalfa or clover of first growth, just when it is coming into blossom, having the soil nice and moist and smoothing the surface as fast as plowed. The hot weather will cause it to decay and it is plant food to pass off into the soil, giving to the soil immense quantities of nitrogen which the plant has gathered and which the soil is in so much need of throughout the Intermountain West. In this manner the alfalfa plant is destroyed so that they will not interfere with other crops in following seasons. The soil should be plowed again in the fall just before freezing weather. A disc harrow should be used during the summer in order to destroy weeds or any growth that might appear between the two plowings. In this way the soil will get a thorough rest which it needs, and will be well fed and ready for future work.

Where the seasons are longer and where three crops of hay are secured in one year; then the second growth may be used with success.

Soil prepared in the above mentioned manner has been found to be in excellent condition for sugar beets for at least two crops thereafter.

There is great necessity in the Intermountain West for rotation of crops. In fact it is absolutely necessary if we maintain the necessary fertility of the soil; first, for successful farming for present and future generations; and second, that markets for the crops may be secured when raised. The farmers should become acquainted with the fact, if they are not already familiar, that at least 40 years ago the beautiful and extensive valleys of the Sacramento and San Joaquin were used very extensively for the growing of wheat and immense and splendid yields were secured. But they continued to grow wheat consecutively upon the soil until they had reduced it to abject poverty, and now at the present time about all that they are able to grow in a good deal of that section of country is a light crop of barley, barley being a little lighter on the soil than wheat or oats, and owing to the fact that California hay crops in this particular section are

light, they find a market for the barley, a greater portion of it, at San Francisco and other large cities in place of hay to feed their animals. However, it gives the farmers of that section very small returns for their labor, and the use of the soil, and in some localities they are beginning to change their methods of farming and kind of crops.

In Idaho along the banks of the great Snake River and its tributaries, is an abundance of good land with plenty of water and the farmers in these sections should give more thought to the feeding of the soil, as it is at least just as necessary as the feeding of the horse that plows the soil; as the soil furnishes food for all mankind and for all the animal creation, and it should be the object of each generation as they appear on the scene, to do their part in bequeathing to the next generation, conditions better than they found them, as a high standard of culture means better returns for the labor performed with a higher standard of citizenship. I sincerely hope that the farmers of Idaho and all other sections, where it is necessary, will wake up and do their part along these lines.

Northern Colorado (in and around Greeley) discovered the benefits derived from the application of the above mentioned methods, in the use of the alfalfa and clover plants as a fertilizer, many years ago and by the application of these methods and the use of these plants have raised the fertility of their soil to a higher standard than almost any other section, where they are farming on a large scale, and the farmers throughout that section of the country have become immensely rich and their soils immensely valuable, and farmers who have similar conditions may obtain similar results, which I sincerely hope they will do.

MARK AUSTIN.

Bulletin No. 120 of the Massachusetts Station, Amherst, contains the analyses of commercial feed stuffs found in the Massachusetts market during the season of 1907, together with such comments as are called for by the results of the inspection. In addition, is found a discussion of home-grown vs. purchased cattle feeds, complete rations for dairy stock and a tabulated list of the wholesale cost of feeding stuffs for the year. Chemist P. H. Smith and Assistant L. S. Walker are the authors.

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